

which I possess specimens from Bonjean the original discoverer, differs by its rigid habit, with prominent hispid nerves to the leaves and calyces, by its erect anthers, and by the form and colour of its corolla, which in the present species scarcely differs from that of *O. verna*. As far as I can judge from dried specimens, the seeds of *O. rotundata* are considerably broader than those of *O. verna*: on the whole, the characters assigned appear to justify me in proposing this well-marked form as a new species, which like so many others must await the result of continued observation and experiment before it can be finally adopted by naturalists.

V.—*Contributions to the Botany of South America.*

By JOHN MIERS, Esq., F.R.S., F.L.S.

[Continued from vol. iii. p. 451.]

ACNISTUS.

To this genus, as defined on a former occasion (Lond. Journ. Bot. iv. p. 335), I have to add another species. Subsequently (*ibid.* vii. p. 338) I alluded to the great proximity which this genus offers to *Dunalia*, and I may also add that it touches likewise upon the section *Chænesthes* of *Iochroma* on the one hand, in a manner that renders it difficult to determine whether one species of *Acnistus* belongs to this or to the former genus; on the other hand again it osculates closely upon *Brachistus*, so that *B. oblongifolius* from the length of its corolla (being twice that of its calyx) might almost be considered as an *Acnistus*: in this latter case however, as the plant has very dissimilar geminate leaves, a character peculiarly remarkable in most species of *Brachistus*, and as it presents only two, rarely more flowers in each axil, it cannot be considered as an *Acnistus*.

14. *Acnistus confertiflorus* (n. sp.);—ramulis glabris, striatis; foliis fasciculatis, oblongis, basi cuneatis, in petiolum longum gracilem attenuatis, apice obtusiusculis, supra pubescentibus, subtus fusco-tomentosis: floribus umbellato-fasciculatis, pedunculis apice incrassatis, calyceque pilosiusculis, corolla lutea, glabra, lobis acutis, marginibus tomentosis, staminibus styloque subexsertis.—Peruvia, *v. s. in herb. Lindley* (Lobb. n. 328).

In this species the leaves (including a petiole of $\frac{5}{4}$ inch long) are $2\frac{1}{4}$ inches in length and $\frac{3}{4}$ inch broad; the peduncle is 9 or 10 lines, the corolla 8 lines long: each axil usually presents four to five or six flowers, fasciculated with two to three or four young leaves, all growing out of the cicatrix of a fallen leaf of the pre-

vious year : it is probable therefore that the leaves grow to a much larger size than are seen in the above specimen. It comes very near *Acnistus cauliflorus*.

DUNALIA.

Since the last species of this genus were described, I am glad to have had an opportunity of seeing a new and very distinct species belonging to the section *Paucifloræ*, which I found cultivated at Kew, under the name of *Lycium obovatum*. It confirms the views before taken of its structure, founded on an examination of the dried specimens described in the 'Lond. Journ. Bot.' vol. iv. p. 333, and vol. vii. p. 337.

7. *Dunalia lilacina* (n. sp.);—fruticosa, inermis, ramulis striatis; foliis in axillis fasciculatis, spathulato-oblongis, apice obtusiusculis aut vix acutis, in petiolum elongatum gracilem attenuatis, utrinque glaberrimis, margine revolutis, venis superne immersis subtus coloratis; floribus in fasciculis axillaribus solitariis, nutantibus, pedunculo gracili, 1-floro, calyceque brevi campanulato 5-nervio glabro, dentibus 5, rotundatis, mucronatis; corolla infundibuliformi, lilacina, calyce 6-plo longiore, extus vix puberula, intus superne glabra, imo pubescente, limbo brevissimo, tomentoso, fere integro, dentibus 5-6, acutis, cum alteris fere obsoletis glabris interjectis; staminibus 5-6, inclusis, quorum 3 paulo brevioribus, filamentis glabris, supra basin insertis, appendicibus brevibus, utrinque bifidis, cano-pubescentibus; stylo glabro, incluso.—Patria ignota, v. s. in hort. Kew. cult.

This species approaches very near to *D. ramiflora*: the internodes are closely approximated, with four to six leaves crowded in each axil; the leaves are $1\frac{5}{8}$ inch long, tapering gradually from near the apex into a slender petiole of $\frac{3}{4}$ of an inch, being altogether $2\frac{1}{2}$ inches in length, and they are 5 lines in breadth; the peduncles are only $\frac{1}{2}$ inch long, scarcely thickened at the apex; the calyx is 2 lines long; the corolla 1 inch in length, 2 lines in diameter from the base to the middle, whence it gradually enlarges to nearly 4 lines in the mouth; the filaments are quite glabrous, arising from fleshy oblong cano-tomentose processes, with free margins, adnate to the base of the corolla for the length of $1\frac{1}{2}$ line; the appendages, which are a continuation of the free margins of the processes, instead of being single and glabrous on each side of the filaments, as in all the other species, are here each bifid, very cano-tomentose, and scarcely a line in length; the anthers are below the mouth of the corolla, as is also the clavate stigma, which is crowned with two greenish viscid glands.

PHRODUS.

Among the collections made by Bridges in the arid districts of the province of Coquimbo in Chile, are three plants that bear quite the aspect of some of the singular Nolanaceous species which I noticed on a previous occasion as belonging to the genera *Alona* and *Dolium* of Dr. Lindley. One of these same plants was formerly described by me (Lond. Journ. Bot. iv. p. 501) under the name of *Alona microphylla*, because it possessed the same general habit, with flowers similar to those of *Alona ericifolia* and other Nolanaceous plants from the same locality, and being without fruit I concluded it must belong to that genus.

The plants now to be described, though evidently referable to the tribe *Solaneæ* of Endlicher, do not correspond with any recorded genus: from *Salpichroma* they differ in having a more tubular calyx, and a much shorter and broader corolla, which does not become black in drying: they approach *Dunalia* in the structure of their flowers, and somewhat in their *Lycium*-like habit, but their filaments are simple and more exerted. They greatly resemble at the same time many species of *Lycium*, but they differ from that genus in having much larger and more campanular flowers with a very different æstivation. The generic name now proposed for these plants is derived from φροῦδος, *evanidus*, because of their shabby stunted habit.

PHRODUS (gen. nov.).—*Calyx* urceolato-tubulosus, usque ad medium 5-dentatus, dentibus acutis, persistens. *Corolla* infundibuliformis, tubo imo contracto, superne ampliore, limbo 5-partito, laciniis oblongis vel rotundatis, expansis, æstivatione induplicato-valvatis. *Stamina* 5, subinæqualia, longe exserta; *filamenta* filiformia, in coarctationem tubi adnata, imo villosa, hinc glabra; *antheræ* ovatae, 2-lobae, sine connectivo apicifixæ, lobis adnatis, rima laterali longitudinaliter dehiscentibus. *Ovarium* ovatum, imo glandula annulari cinctum, 2-loculare, pluriovulatum, placentis incrassatis dissepimento utrinque adnatis. *Stylus* filiformis, longitudine staminum. *Stigma* clavatum, obsolete 2-lobum. *Bacca* globosa, apice conica, calyce distensa arcte inclusa, 2-locularis, polysperma. *Semina* compressa, reniformia. *Embryo* in albumen carnosum teres, arcuatus, radícula ad angulum basilarem spectante, cotyledonibus semiterebibus fere æquante.—Fruticuli *Chilenses ramosissimi*; folia minima, ericoidea, carnosula; flores solitarii, axillares, pedunculati.

1. *Phrodus microphyllus*. *Alona microphylla*, Lond. Journ. Bot. iv. 501;—fruticulosus, nodoso-flexuosus, implexo-ramosus, ramulis junioribus brevibus divaricatis, vel deflexis, abortu apice sæpe spinescentibus; foliis subsessilibus parvulis, subfasciculatis, spathulato-oblongis, carnosis, superne canaliculatis, sub-

tus convexis, utrinque glanduloso-pubescentibus, imo callo tumido persistente suffultis, callibus agglomeratis et axillis demum nudis hinc nodosis; floribus breviter pedunculatis.—Chile, prov. Coquimbo, *v. s. in herb. Hook.* (Bridges, no. 1330), *in herb. Lindl.* (Bridges, no. 1331*).

This appears to be a low bushy stunted shrub, with close, short, flexuose, knotty branchlets, frequently spinescent at the apex, or often reduced to a short spine: the older branches are generally quite bare of leaves, but the younger ones are closely invested with minute fleshy fasciculate semiterete leaves, scarcely more than 1 or 2 lines in length, and barely half a line in thickness; these soon fall off, leaving the axils bare, the sterile appearance of which is increased by the knotty accretions formed by the persistent tumid bases of the fasciculate leaves; the peduncle is 2 lines in length; the calyx, 3 lines long, is somewhat campanular, being 2 lines broad, cleft full one-third of its length into five erect equal teeth: the corolla seldom exceeds 6 or 8 lines in length, the portion within the calyx being cylindrical, but it swells above and becomes funnel-shaped, with an expanded border consisting of five obtusely triangular equal lobes; the stamens are inserted in the contracted portion of the tube, where they are very hairy, above they are quite smooth, slender, erect, and extend 2 lines beyond the mouth of the tube; the style is exerted to the same length †.

2. *Phrodus Bridgesii* (n. sp.);—fruticosus, ramulis elongatis, teneris, subadscendentibus; foliis fasciculatis, spathulato-linearibus, subcarnosis, superne canaliculatis, subtus convexis, utrinque viscoso-pubescentibus; corolla calyce 3-plo longiore; staminibus subinæqualibus, longe exsertis, stylo æquilongis.—Chile ad Coquimbo. *v. s. in herb. Hook. et Lindl.* (Bridges, no. 1332).

* There is evidently a confusion here in the numbers, which is not unfrequent in many of Bridges's Chile plants, in consequence of two or more specimens having been distributed on the same sheet without attached labels. Owing to this same cause, I have described his no. 1331 as the *Dolia vermiculata*; it should have been no. 1330, these numbers having been respectively interchanged. Under no. 1332 two very different plants have been distributed; in Dr. Lindley's herbarium that number corresponds with his *Alona baccata*, and in Sir Wm. Hooker's herbarium the same number refers to a very distinct plant, which I have correctly described under the name of *Sorema acuminata*. I may here also observe, that there exists another error connected with some of Bridges's plants formerly described by me, inasfar as regards their locality: thus *Sorema acuminata* (Lond. Journ. Bot. iv. 370), *Sorema linearis* (id. 499), *Alona ericifolia* (id. 501), and *Dolia clavata* (id. 508), are all from the neighbourhood of Coquimbo, and not from Concepcion, as I found inscribed in mistake on the specimens referred to.

† This plant with generic details will be figured in the 'Illustr. South Amer. Plants,' plate 42 A.

The habit of this species is somewhat different from the preceding, the branchlets being much longer, straighter and more slender; the leaves are also larger and more linear, being 4 lines long by $\frac{3}{4}$ line broad, and after their fall the axils do not become enlarged by callous knots, as occurs in the two other species; the peduncle is 4 lines long; the calyx, 5 lines in length, is more funnel-shaped, and divided nearly halfway down into five acute teeth; the corolla is 9 lines long, spreading above to a diameter of 6 lines, with a border of five short lobes, and is apparently of a pale yellow or whitish colour; both it and the calyx as well as the peduncle, the stem and the leaves are thickly clothed with short glandular pubescent down: the style, thickened at its apex, is considerably farther exerted than the stamens: the berry, closely invested by the calyx, is globular, with a conical apex, and is 5 lines in diameter*.

3. *Phrodus nodosus* (n. sp.) ;—fruticosus, ramulis nodoso-flexuosis, subadscendentibus; foliis fasciculatis, spathulato-linearibus, carnosius, eveniis, superne canaliculatis, imo callo tumido persistente suffultis, axillis hinc demum nodosis: corolla obscuriore, calyce campanulato duplo longiore, staminibus vix exertis; stylo istis multo longiore.—Coquimbo, v. s. in herb. *Hook. et Lindl.* (Bridges, no. 1333).

The habit of this plant is intermediate between the two former, the branches being flexuose and knotty as in the first species; its leaves are similar in size and shape to those of *P. Bridgesii*, but the agglomerated persistent callous bases of the leaves, after they have fallen, give to the branches, which are more flexuose and crooked, the same knotty appearance as in *P. microphylla*, a character quite wanting in the second species †.

PHYSALIS.

Having spoken so frequently of this genus in relation to other approximate genera, it is desirable that its limits should be defined with more accuracy than heretofore. Its distinction from *Saracha* has been already marked by its inflorescence offering always a solitary axile flower, by its greatly increased vesicular reticulated calyx in fruit wholly inclosing the berry, and by its more deeply campanular and less rotate corolla with a border not so deeply cleft. In its enlarged vesicular calyx it offers much analogy with the genera *Nicandra*, *Cacabus*, *Thinogeton*, *Anisodus*, *Withania* and *Hypnoticum*, but the former has a longer

* This species will be figured in plate 41 of the 'Illust. South Amer. Plants.'

† This plant will be shown in plate 42 B. of the same work.

and larger campanular corolla, with an erect almost entire margin, and a calyx with five deeply carinated angles, and five spur-like extensions at its base; the second has a more decidedly infundibuliform corolla, resembling that of a *Nolana*, and an almost transparent calyx marked with dark green lines; the third has a still more tubular corolla with an enlarged thickened calyx: *Anisodus* has a large deeply bell-shaped flower with rounded lobes, and a vesicular thickened calyx with five large prominent nervures which become woody: in *Withania* the corolla is narrow and deeply cleft, and the fructiferous calyx is broad and not contracted in its mouth: *Hypnoticum* has a small corolla with an extremely short tube, and a small erect five-cleft border.

In *Physalis*, on the contrary, the corolla is broadly campanular, with a spreading pentangular border more or less entire, and generally with five large coloured spots at its base. All possess a swelling calyx enveloping the fruit, and *Hypnoticum* agrees with *Physalis* in having stellate or brachiate pubescence. The following is its emended generic character:—

PHYSALIS (char. reform.).—*Calyx* brevis, tubulosus, in lobis 5 acutis semifissus, tubo in fructu valde aucto vesiculoso 5-anguloso, persistens. *Corolla* late campanulata, sæpissime maculis magnis 5 colorata, imo breviter coarctata, limbo subrotato, 5-angulato, rarius in lobis 5 triangularibus partito, æstivatione plicato-valvata. *Stamina* 5, imo corollæ inserta, e squamis 3-dentatis basi corollæ adnatis et fere in anulum sistentibus orta; *filamenta* teretia, erecta; antheræ oblongæ, basifixæ, circum stylum conniventes, loculis 2, parallele connexis, rima marginali longitudinaliter dehiscentibus. *Ovarium* ovatum, imo disco carnosum impositum, 2-loculare, *placentis* e dissepimento cruciatim partientibus, tunc bifidis, lunularibus, undique ovuligeris. *Stylus* simplex, longitudine staminum. *Stigma* capitatum, 2-lobum. *Bacca* globosa, calyce vesiculoso, membranaceo, reticulato, celata. *Semina* plurima, parva, in pulpam nidulantia, reniformia, *testa* scrobiculata. *Embryo* intra *albumen* carnosum hemicyclicus, teres, radícula infera hilo laterali evitante cotyledonibus semiteretibus duplo longiore.—*Herbæ suffruticulosæ, radice perennente, totius orbis undique indigenæ, procumbentes, dichotomo-ramosæ, pilosæ; folia alterna, vel gemina, ovata, integra, aut angulato-dentata, interdum cordata; flores pedunculati, solitarii, extra-axillares, sæpissime nutantes.*

All the species of *Physalis* are too well known and described to require any observation, but for the sake of illustrating the details of the genus, I have added a species that appears to be unrecorded.

Physalis gracilis (n. sp.);—caule gracili, substricto, pubescente; foliis ovatis, acutis, petiolatis, sæpe inæquilateralibus, crassiusculis, utrinque pallidis et pubescentibus, petiolo sublongo, piloso; floribus axillaribus, subsolitariis, pedunculo gracili, petiolo æquilongo, 1-floro, flore nutante; calyce campanulato, profunde 5-partito, lobis acutis; corolla cyathiformi-campanulata, lutea, maculis 5 magnis violaceis notata, limbo 5-angulato, angulis obtusis; staminibus corolla brevioribus, filamentis brevissimis.—Real del Monte, Mexico, *v. s. in herb. Hook.* (Coulter, 1222).

The specimen is scarcely more than 8 inches long, with a single, slim, straight, apparently erect and somewhat branching stem; the internodes are about 1 inch, the leaves 12 to 15 lines long, 8 lines broad, upon a slender petiole 4 lines in length, they are somewhat obtuse and unequal at base; the more slender peduncle is about 6–8 lines; the calyx, 5 lines long, is half cleft into five acute segments, and together with the peduncle is hairy; the corolla is 8 lines broad and 4 lines deep, the filaments are 3 lines, and the anthers nearly 2 lines long*.

LARNAX.

There exists a small group of plants in several respects approaching *Physalis* as defined in the preceding page, but which differ in having fasciculate flowers, a corolla deeply 5-cleft, and in being herbaceous, erect, not prostrate plants. They vary from *Cacabus* and *Thinogeton* in the structure and colour of their corolla. The type is the *Physalis subtriflora* of the 'Flora Peruviana,' tab. 176, and two other plants described by Prof. Kunth are evidently congeneric with it. They differ from *Saracha* in their flowers being fasciculate, not decidedly umbellate, and in their inflated calyx, which subsequently incloses the fruit, as in *Physalis*. They approach *Margaranthus* very closely, but they do not accord with that genus in the form of their corolla. The generic name proposed for this group is derived from *λάρναξ*, *capsa*, because the fruit is encased by the swollen calyx.

LARNAX (gen. nov.).—*Calyx* tubulosus, angulatus, tenuis, 5-dentatus, demum augescens et vesicarius. *Corolla* tubo brevissimo, campanulato-infundibuliformi, limbo 5-fido, lobis acutis, subpatentibus. *Stamina* 5, brevia, tubo inclusa, æqualia, *filamenta* brevissima, *antheræ* 2-loculares, loculis adnatis. *Ovarium* ovatum, 2-loculare. *Stylus* brevis, erectus, apice subincurvus. *Stigma* sub-2-lobum. *Bacca* pisiformis, 2-ocularis,

* A figure of this species will be given in plate 39 B. of the 'Illust. South Amer. Plants.'

calyce globoso, urceolato, vesicario, membranaceo inclusa. *Semina* plurima, reniformia. *Embryo* ignotus.—Herbæ Peruvianæ et Mexicanæ, *annuæ, erectæ, dichotome ramosæ*; folia *alterna, solitaria aut gemina, petiolata*; flores *axillares, subsolitarii, aut plurimi fasciculati*; pedunculi *1-flori, floriferi erecti, fructiferi cernui*; corolla *lutea*.

1. *Larnax subtriflora*. *Physalis subtriflora*, *R. et P. Flora Peruv.* ii. 42. tab. 176 *a*;—caule angulato; foliis ovatis, acutis, solitariis, vel geminis, venosis, utrinque villosis, pilis mollibus articulatis; pedunculis 2–3nisve, gracilibus, erectiusculis; corolla lutea, venosa; bacca pisiformi, lutescente.—Peruvia, ad Obragillo.

This is an annual, growing to the height of 2 feet; the leaves are represented as being 3 inches long, $1\frac{1}{2}$ broad, on a petiole of 4 or 5 lines, they are somewhat unequal at base, and covered with long soft pubescence; the peduncles are from 6 to 9 lines long, the calyx scarcely 2 lines in length, the tube of the corolla 2 lines long, campanulate above, and the lobes of the border, of the same length, are somewhat patent.

2. *Larnax Orinocensis*. *Physalis Orinocensis*, *H. B. K.* iii. 12;—caule herbaceo angulato, dichotome ramoso; foliis ovatis, subacuminatis, basi inæqualibus, et in petiolum decurrentibus, supra glabris, subtus pallidioribus, nervo venisque hirtellis; floribus geminis, pedunculatis, pendulis; calyce urceolato-globoso, piloso, 5-dentato, dentibus acutis, pilis articulatis; corolla infundibuliformi-campanulata, pilosiuscula, limbo 5-fido, laciniis obtusis æqualibus; bacca globosa, pisiformi, calyce vesicario aucto reticulato tecta.—Orinoco.

Neither this plant nor the following, from their inflorescence or general appearance, accord with *Physalis*, and so much was Prof. Kunth impressed with this idea, that he adds respecting them, “species anomalæ, an genus distinctum?” They appear to agree in all essential respects with the characters of the plant last described. The leaves are from 3 to $3\frac{1}{2}$ inches long, 19 to 20 lines broad, on a pubescent petiole of 8 to 10 lines in length. The flowers are 5 lines long; the peduncles 2 lines in flower, 4 lines in fruit. The stamens are included within the corolla and are glabrous.

3. *Larnax Xalapensis*. *Physalis Xalapensis*, *H. B. K. loc. cit.* p. 13;—caule herbaceo, angulato, subdichotome ramoso; foliis oblongis, acuminatis, basi angustatis et æqualibus, integris, ciliatis, pilis minutissimis utrinque conspersis; floribus plurimis, subfasciculatis, pedunculis pilosis, calyce, corolla, fructuque ut in præcedente.—Mexico, ad Xalapam.

This species differs only from the former in its more acuminate leaves, equal at base and pilose on both sides, and in its fasciculate flowers. The leaves are from 4 to 5 inches long, 20 to 21 lines broad, on a petiole of 12 to 15 lines in length. The flowers resemble those of the former species in size and shape; they are probably fasciculate, as in the first-mentioned species, and not umbellate, a mode of expression often used by Professor Kunth in that sense, which is the more evident, as he makes no allusion to any general peduncle.

VI.—On the Identification of a Genus of Parasitic Hymenoptera.

By J. O. WESTWOOD, F.L.S.

To the Editors of the *Annals of Natural History*.

GENTLEMEN,

Hammersmith, June 5, 1849.

As I have neither leisure nor inclination to answer in detail Mr. Newport's reiterated attacks upon me, I shall merely observe—

1st. That I again deny having expressed a single word of doubt as to Mr. Newport's having found the insects in question in 1832, or that I asserted that his knowledge of them was derived from my communications. I said that Mr. Newport must have known from those communications that his insects were identical with those reared by Audouin and exhibited by me.

2nd. The notices published by me in 1845 and 1847 are sufficient to identify my insect and to distinguish it from every known species of *Chalcididæ*, and ought (even if Mr. Newport had not been present when I exhibited my specimens and drawings, and gave a *vivâ voce* description of the insect) to have satisfied him of their identity. My notices, although not drawn up in a technical manner, indicate the chief essential peculiarities of the insect, viz. 1st, its minute size; 2nd, its parasitism in the nests of mason bees and wasps; 3rd, the impregnation of the female within the cell of the bee; 4th, the habit of the female of using her wings, and seeking other cells in which to deposit her eggs; 5th, its position in the family *Chalcididæ*; 6th, the singular distorted* antennæ of the males; 7th, the minute size of the wings of the male, and 8th, the full size of the wings of the female.

3rd. I reaffirm the identity of the insects, and having seen Mr. Newport's drawing made seventeen years ago, I do not hesitate to state that his description has been drawn up from this

* The antennæ of *Elasmus*, &c. are not distorted in form; they are simply furnished with long lateral branches.